U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Species Account
SACRAMENTO ORCUTT GRASS
Orcuttia viscida

CLASSIFICATION: ENDANGERED
Federal Register Notice 58:14338; March 26, 1997
http://ecos.fws.gov/docs/federal_register/fr3057.pdf (125 KB)


Sacramento Orcutt Grass
© 2004 Carol W. Witham

STATE LISTING STATUS AND CNPS CODE:
This species was listed as endangered by the California Department of Fish and Game. The California Native Plant Society has placed it on List 1B (rare or endangered throughout its range).

CRITICAL HABITAT: Originally designated in Federal Register 68:46683; August 6, 2003.

The designation was revised in 70:46923; August 11, 2005.

Species by unit designations were published in 71:7117; February 10, 2006.
www.fws.gov/policy/library/2006/06-1080.html
www.fws.gov/policy/library/2006/06-1080.pdf (6.6 MB)

RECOVERY PLAN: Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon; December 15, 2005.
http://www.fws.gov/sacramento/es/recovery_plans/vp_recovery_plan_links.htm

5-YEAR REVIEW: Completed June 2008
http://ecos.fws.gov/docs/five_year_review/doc1933.pdf
Latest information about the species.

DESCRIPTION:


Sacramento Orcutt Grass
© 2004 Carol W. Witham

Sacramento Orcutt grass (*Orcuttia viscida*) is a small, densely tufted annual member of the grass family (Poaceae) grasses. (See Orcuttieae Grasses below for more informaion) Other common names for this species include Sacramento orcuttia and sticky Orcutt grass. It grows 2 to 10 centimeters (1 to 4 inches) tall. The plant is covered with small glandular hairs and is sticky even when young, and more so at maturity. It has few to many slender stems and a spike-like inflorescence, which is congested at the apex.

Flowers are characterized by a five-toothed lemma (bract) with the middle tooth conspicuously longer than the lateral ones. The lemma teeth curve outward at maturity, giving the inflorescence a

distinct bristly appearance. As in other Orcutt grasses, the leaves lack a ligule (small, scale-like outgrowth found on some grasses).

Although Sacramento Orcutt grass is geographically isolated from all other members of the genus, it most closely resembles the threatened San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*).

See Hickman (1993) in General Information about California Plants, below, for a detailed description of these species.

VERNAL POOLS:

Vernal pools are a unique kind of wetland ecosystem. Central to their distinctive ecology is their ephemeral nature. Vernal pools fill with water temporarily, typically during the winter and spring, and then disappear until the next rainy season.

In California, where extensive areas of vernal pool habitat developed over a long geological timeframe, unique suites of plants and animals have evolved that are specially adapted to the unusual conditions of vernal pools. Fish and other predators are among species that have been excluded evolutionarily byte annual filling and drying cycles of vernal pools.

The prolonged annual dry phase of the vernal pool ecosystem also has prevented the establishment of plant species typical of more permanent wetland ecosystems.

ORCUTTIEAE GRASSES:

The genera *Orcuttia*, *Neostapfia* and *Tuctoria* form the Orcuttieae tribe. All members of the Orcuttieae tribe share several characteristics that differ from many other grasses. Most grasses have hollow stems, but the Orcuttieae have stems filled with pith (the soft, spongy center found in many plants). Another difference is that the Orcuttieae produce two or three different types of leaves during their life cycle, whereas most grasses have a single leaf type throughout their life span.

The juvenile leaves of the Orcuttieae, which form underwater, are cylindrical and clustered into a basal rosette. After the pool dries, terrestrial leaves form in all species of the tribe. These leaves have flattened blades and are distributed along the stem.

Another characteristic common to all Orcuttieae is the production of an aromatic exudate, which changes from clear to brown during the growing season. The exudate most likely helps to repel herbivores

Orcuttia species have a third type of leaf that is not found in *Neostapfia* or *Tuctoria*. The terrestrial leaves of the Orcuttieae also differ from other grasses in other respects. Whereas grass leaves typically are differentiated into a narrow, tubular sheath that clasps the stem tightly and a broader blade that projects away from the stem, terrestrial leaves of the Orcuttieae are broad throughout and the lower portion enfolds the stem only loosely.

DISTRIBUTION:

The range of the species lies in a narrow zone of remnant depositional stream terraces at the base of the Sierran foothills in Northern Hardpan and Northern Volcanic Mudflow vernal pools. It is now known from nine occurrences, all in eastern Sacramento County. The occurrences are found

at an elevation of 46 to 82 meters (150 to 270 feet) on high-terrace vernal pools that range in area from 0.1 hectare (0.25 acre) to 0.28 hectare (2.03 acres).

U.S. Geological Survey 7.5 Minute Quads: Goose Creek (495D) 3812131, Elk Grove (496A) 3812143, Folsom (511B) 3812162, Buffalo Creek (511C) 3812152.

THREATS:

Monitoring shows that the threat of competition from invasive, nonnative plants has increased since the time of listing. For example, waxy manna grass (*Glyceria declinata*), which was not included as a threat in the rule to list the species, is a nonnative, perennial grass that forms dense stands and is able to invade Sacramento Orcutt grass habitat and displace the listed plant.

Habitat loss from urbanization also continues to be a threat to one of the occurrences. Although eight occurrences are now protected from land conversion, impacts from surrounding land use, adjacent road widening, and other human activities continue to threaten the species.

REFERENCES FOR ADDITIONAL INFORMATION:

General references about California plants
www.fws.gov/sacramento/es/plant_spp_accts/plant_references.htm

Photo credits: © 2004 Carol W. Witham. For larger images and permission information see CalPhotos http://calphotos.berkeley.edu/.

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825
Phone (916) 414-6600
FAX (916) 414-6713

Last updated December 21, 2009